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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,628	11/28/2003	Var Lordahl	Valve	7115

42811 7590 09/13/2005

KAJANE MCMANUS
MCMANUS AND ASSOCIATES
1505 ASHLEY COURT
WOODSTOCK, IL 60098

EXAMINER

HEPPERLE, STEPHEN M

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/722,628	Applicant(s) LORDAHL ET AL.	
	Examiner Stephen M. Hepperle	Art Unit 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

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Claims 2 and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 2, “preferred” and in claim 11, “preferably” render the claims indefinite because it is unclear if PTFE is actually part of the claimed invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. Moen shows a mixing valve cartridge with a pressure balancing valve spool 40 reciprocating inside plastic sleeve 24. Nambu shows a spool valve with a plastic spool inside a plastic housing, where the plastic is PTFE or PEEK (col. 4, lines 50-59). Takano teaches a pressure balancing spool made of PTFE because of light weight and self-lubrication ability (col. 4, lines 45-49). It would have been obvious to make the Moen sleeve and/or spool of PTFE as taught by Nambu because PTFE is well known for its superior chemical resistance and low friction. Alternatively, it would have been obvious to make the Moen plastic sleeve 24 and/or spool 40 of PTFE as taught by Takano to reduce weight and provide self lubrication.

Claims 3-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. as applied above, further in view of Powers et al. Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets

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through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 40 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dotter shows a pressure controlling spool 19 with a spring 26 between the handle and spool. Moen (4,305,419) shows a mixing cartridge with a plastic sleeve 24. Shieh shows a pressure balancing valve in a mixing cartridge with spring bias on both ends.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on 571-272-4930. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Stephen M. Hepperle
Primary Examiner
Art Unit 3753

SMH